

HR 239 Hearing - January 23, 2015
House Committee on Natural Resources

Mr. Chair, Members of the Committee:

Our law firm in Kalispell represents more than 1,600 clients who have been diagnosed with asbestos related disease from their time living and working in Libby. These former mine workers, their families, and their neighbors are acutely aware of the hazards associated with asbestos, particularly the kind that was mined and processed at the W.R. Grace facility in Lincoln County. HR 239 has the potential to increase exposures to asbestos containing products across the State.

Zonolite Attic Insulation

The finished product from the Libby mine resulted in Zonolite Attic Insulation that was, and remains prevalent across the State. Many older homes in Montana still contain Zonolite, and the asbestos fibers within the product remain latent until it is disturbed. This disturbance typically happens during remodels, demolition, or any other process that moves the product around. Despite its prevalence, it remains surprisingly toxic. The EPA recently released their long awaited toxicity report for Libby amphibole asbestos, the summary of which is attached. In the report, the EPA recognizes that exposure to asbestos at a level of .00009 fibers per cubic centimeter (f/cc²) over prolonged periods can cause plaques to build on the pleura of the lung and eventually cause decrements in lung function and even death. Studies have demonstrated that the disturbance of soil with .001% asbestos content can cause airborne levels of asbestos as high as 0.1 f/cc². (Addison et.al, *Release of Asbestos Fibers from Soil*, Institute of Occupational Medicine, 1988) This demonstrates that small levels of asbestos content have the potential to cause significant exposures to toxic material when disturbed.

Problems with the Bill

We are concerned with the current bill as it seems to be taking a step backwards in the effort to protect human health. This bill decreases the authority of the DEQ to oversee projects with significant asbestos contamination. Without established oversight, efforts to remove hazardous material may be undertaken by less than qualified individuals, exposing them unknowingly to highly toxic fibers. The bill proposes to increase the area required for regulatory authority from 3 ft² to 120 ft². This increase of 3,900% for the square footage to invoke DEQ regulatory authority does not move us in the right direction, and does not protect the health and safety of people from Libby amphibole asbestos.

Mitigation in Residences

In fact, rather than reducing the regulatory threshold for asbestos, we believe that residences in Montana should also have sufficient oversight to protect the health of residents and people working in their homes. Many people from Libby have contracted their disease, in part, due to their exposure to Zonolite insulation in their homes. Our firm has heard accounts of people outside of Libby removing this asbestos laden insulation by simply shoveling it out into the yard. A lack of regulation for proper remediation, and a lack of information regarding the toxicity of the substance, likely results in many people being unwittingly exposed to these toxic fibers. We suggest that first this committee take the opportunity to refuse to backtrack on protecting the health of Montana citizens, and then instead assist Montanans in ensuring their homes can be safely remediated. In that regard, the Zonolite Insulation Trust (www.zonoliteasbestostrust.com) provides rebates to assist property owners in the remediation of their properties. Education for contractors and homeowners regarding how to recognize Zonolite and the proper methods of remediation can go a long way to ensure the safety of Montanans.

Sincerely,



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IRIS FINAL ASSESSMENT OF LIBBY AMPHIBOLE ASBESTOS (LAA)

General Information

Libby Amphibole asbestos is a contaminant of vermiculite ore that was mined in Libby, Montana. Vermiculite is a silver-gold to gray-brown mineral that has been used as building insulation or as a soil amendment. Because asbestos fibers are so small, this contamination is not evident with the naked eye. Shipments of the asbestos-containing vermiculite were sent to processing sites across the United States.

LAA is a mixture of asbestos fibers in the amphibole mineral family. LAA is made up of very durable fibers that do not typically dissolve or break down. Fibers may remain airborne before settling into soil or sediment, although physical activity can disturb fibers allowing them to become airborne again.

Exposure Information

Human exposure to Libby Amphibole asbestos is observed in the Libby, Montana region, at sites where the LAA contaminated vermiculite was processed, and at locations where it was used, including homes with insulation derived from Libby vermiculite. Inhalation of LAA is the route of exposure that is the primary concern for human health. When the mining and milling operations were active, residents of the Libby, Montana region were exposed to high ambient air concentrations of LAA. People in Libby, Montana may also have been exposed to LAA from residual fibers brought into a home on clothing, shoes or other materials from the work site.



Now that mining and milling operations have ceased, exposures could arise from soil at sites that processed asbestos-containing vermiculite from Libby in the past. Additionally, residents may also be exposed if they have unremediated soils with high concentrations of LAA.

Health Effects Information and IRIS Assessment Findings

The IRIS assessment includes an estimate of the amount of Libby Amphibole asbestos that one can breathe every day for a lifetime that is likely to be without harmful health effects. This is known as an inhalation reference concentration, or RfC. Based on a principal study of occupational exposure from workers in Marysville, OH, the final assessment specifically evaluates a type of thickening of the pleura detectable on X-ray called "localized pleural thickening" (LPT). The pleura are membranes that envelop the lung. LPT is associated with decreased lung function. This will be the first such estimate regarding non-cancer effects for any type of asbestos.

This assessment concludes that LAA is "carcinogenic to humans" by the inhalation route of exposure and also includes an estimate of cancer risk from inhalation exposure to LAA. This is known as an inhalation unit risk, or IUR. The classification of LAA as carcinogenic to humans is based on strong evidence of cancer in humans from epidemiological studies.

About the IRIS Program

EPA's Integrated Risk Information System (IRIS) is a human health assessment program that evaluates scientific information on effects that may result from exposure to chemical substances in the environment.

Through IRIS, EPA provides science-based human health assessments to support regulatory activities and decisions to protect public health. The IRIS database contains crucial information on chemical substances that can be used to support the first two steps (hazard identification and dose-response assessment) of the human health risk assessment process. When supported by available data, IRIS provides health effects information and toxicity values for chronic health effects (including cancer and effects other than cancer). Government and others combine IRIS toxicity values with exposure information to help characterize public health risks of chemical substances; this information is then used to support risk management decisions designed to protect human health.

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Integrated Risk Information System (IRIS)

You are here: [EPA Home](#) » [Research](#) » [Environmental Assessment](#) » [IRIS Home](#) » Libby Amphibole asbestos Quickview (CASRN NA)

Libby Amphibole asbestos Quickview (CASRN NA)

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of toxicity data by U.S. EPA health scientists from several Program Offices, Regional Offices, and the Office of Research and Development.

Disclaimer: This QuickView represents a snapshot of key information. We suggest that you read the [IRIS Summary](#) to put this information into complete context.

For definitions of terms in the IRIS Web site, refer to the [IRIS Glossary](#).

Status of Data for Libby Amphibole asbestos

File First On-Line: 12/08/2014; **Last Significant Revision:** 12/08/2014

Category (section)	Status	Last Revised
Oral RfD Assessment	No data	12/08/2014
Inhalation RfC Assessment	On-line	12/08/2014
Carcinogenicity Assessment	On-line	12/08/2014

Synonyms

- Libby Amphibole asbestos
- Libby asbestos
- Libby Amphibole

Libby Amphibole asbestos Source Documents

- Libby Amphibole asbestos Summary
- Toxicological Review of Libby Amphibole asbestos (PDF) (685 Pages, 8.45 M, about PDF)
- Libby Amphibole asbestos Support Documents

Revision History

Date	Section	Description
12/08/2014	IB, II, VI	RfC and cancer assessment added

- See IRIS Summary for complete revision history.

Chronic Health Hazard Assessments for Noncarcinogenic Effects

Reference Dose for Chronic Oral Exposure (RfD)

Not Assessed under the IRIS Program.

Reference Concentration for Chronic Inhalation Exposure (RfC)

Critical Effect	Point of Departure*	UF	RfC
Localized pleural thickening	BMCL ₁₀ : 2.6 x 10 ⁻² fiber/cc	300	9 x 10 ⁻⁵ fiber/cc

* The Point of Departure listed serves as a basis from which the Inhalation RfC was derived. See Discussion of Conversion Factors and Assumptions for more details.

- Principal and Supporting Studies (Inhalation RfC)
 - Occupational epidemiology study, Rohs et al. (2008)
- Confidence in the Inhalation RfC
 - Study -- Medium

- Database -- Medium
- RfC -- Medium

Carcinogenicity Assessment for Lifetime Exposure

- **Weight-of-Evidence Characterization**
 - Carcinogenic to humans (Inhalation route)
- **Weight-of-Evidence Narrative:**
 - Under the EPA Guidelines for Carcinogen Risk Assessment (U.S. EPA, 2005a), Libby Amphibole asbestos (LAA) is "carcinogenic to humans" following inhalation exposure based on epidemiologic evidence that shows a convincing association between exposure to LAA fibers and increased lung cancer and mesothelioma mortality.
 - This may be a synopsis of the full weight-of-evidence narrative. See IRIS Summary.

Quantitative Estimate of Carcinogenic Risk from Oral Exposure

- Not Assessed under the IRIS Program.

Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

Inhalation Unit Risk(s)	Extrapolation Method
1.7×10^{-1} per fiber/cc	Linear low dose extrapolation below the POD.

Inhalation Concentrations at Specified Risk Levels

Risk Level	Concentration
E-4 (1 in 10,000)	5.9×10^{-4} fiber/cc
E-5 (1 in 100,000)	5.9×10^{-5} fiber/cc
E-6 (1 in 1,000,000)	5.9×10^{-6} fiber/cc

- Dose-Response Data (Carcinogenicity, Inhalation Exposure)
 - Tumor Type: Cancer mortality from lung cancer and mesothelioma
 - Test Species: Humans
 - Route: Inhalation
 - Reference: Sullivan (2007)